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ECONOMIC AFFAIRS

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USSR REPORT  
ECONOMIC AFFAIRS

No. 1013

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## ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

### PRODUCT QUALITY MANAGEMENT SYSTEMS DISCUSSED

Moscow EKONOMICHESKAYA GAZETA in Russian No 8, Feb 82 p 10

/Article by A. Glichev, director of the All-Union Scientific Research Institute of Standardization and doctor of economic sciences: "Quality Management"/

/Text/ Broad introduction of overall systems for managing product quality (KSUKP) is a feature of the current stage in work to raise the technical and economic level of industrial output according to plan and to improve its consumer characteristics. While such systems had been established by collectives of several enterprises in Lvovskaya Oblast by the beginning of the 10th Five-Year Plan, their experience now has been assimilated by more than 20,000 enterprises. Introduction of the KSUKP's demonstrates their high efficiency--the output of articles of the highest category is being sharply increased, losses from defective output are being reduced, and the cycle of developing new products is being cut in half. Consumers also are satisfied: there are hardly any complaints about the output of these enterprises.

But the point is not only that the level of quality of many types of output has been raised. Hundreds of thousands of managers, specialists and workers have learned how to more fully and comprehensively utilize technical, organizational, economic and ideological opportunities to improve quality.

/Developing Plans for Introduction/ **/in boldface/**

Now the task consists of consolidating what has been achieved, overcoming existing shortcomings, and taking a further step to improve the technical level and quality of output.

The rate of development of the KSUKP's has slowed down recently. In 1981, the technical targets for development of the systems were registered by about 5,000 enterprises and associations, but in 1980 there were nearly twice as many--approximately 10,000. In all, 26,000 technical targets for development of KSUKP's have been registered in organs of the Gosstandart **/State Committee for Standards/**. While it is taken into account that 20,000 enterprises already have introduced the system, only 6,000 collectives have been engaged in developing it. The rate at which KSUKP's are introduced is even lower in the Ministry of the Coal Industry, Ministry of the Gas Industry, and Ministry of the Petroleum Industry.



Such a state of affairs in industry is especially intolerable in light of the requirements of the 26th CPSU Congress for the active introduction of overall systems for managing product quality.

Practice has shown the need to put together special plans in ministries and enterprises for developing and introducing KSUKP's. These plans take into account the real state of affairs with regard to quality, the scope of production, the degree of preparedness of the management of collectives and other features, and stages of work and periods for their implementation are established. If such organization of affairs is provided for in all sectors, the establishment of overall systems for managing product quality can be completed at all industrial enterprises in the current five-year plan.

It is advisable to involve the key and leading enterprises which have already established their systems more actively in this work. Such enterprises exist in all cities, in every rayon. Leading collectives should not only demonstrate and tell about what was done and how, but look after and assist enterprises beginning this extraordinary work. A practice like this is taking place in a number of sectors, as well as in Moscow, Leningrad, Sverdlovsk and other industrial centers.

In introducing KSUKP's they have still failed to avoid formalism. Individual enterprises are still striving to develop as many more standards as possible, but devote less attention to applying them; as a result, a real increase in quality and reduction of losses from defective products and complaints are not being ensured.

Thus, specialists at the Ivanovskaya Laboratory for State Inspection of Standards and Measuring Technology conducted a check of the KSUKP at the Ivanovskaya Textile and Haberdashery Factory. The system was registered in December 1980. Results of the check showed that they approached the task formally here. The basic standard of the system which should determine its objectives and tasks, the structure, the enterprise's standards personnel, and the place of the KSUKP in the overall system of the enterprise's management does not correspond to the requirements of the methodological documents of the Gosstandart. Plans have not been drafted at the enterprise for inspection and updating of the STP [expansion unknown] and there are no plans for measures to further improve the KSUKP. And a selective check of individual standards showed that their requirements are not being observed. Of course, we do not have to expect a large gain from such a system.

The base organizations of sectors should be uncompromising in accepting overall systems at enterprises. After all, improvement in quality needs a functioning, effective system, not a formal document on its introduction.

At a number of enterprises which have already adopted the system, indifference and loss of interest in its further improvement and development are being observed. Checks by gosnadzor [state inspection] organs show that cases of violation of the requirements of standards and specifications introduced by the KSUKP's still are frequent at plants and in associations. It has been established that nearly half the enterprises are not conducting an annual review of the enterprise's standards, as stipulated by the Gosstandart recommendations. As a result, it turns out that

their content has not been subordinated to fulfillment of the plans for improving product quality in the 11th Five-Year Plan. The standards which have not been updated in time often contain obsolete methods and lack progressive procedures for improving quality.

For this reason, it is necessary, in conformity with the targets for the five-year plan, to reexamine the goals of the KSUKP's, to improve the structure of the systems, and to introduce changes in the enterprise's standards. But only in three ministries so far--the USSR Ministry of the Chemical Industry, Ministry of the Food Industry, and Ministry of Light Industry--have the sectorial recommendations on improving KSUKP's been developed and coordinated with the Gosstandart.

The experience accumulated also makes it possible to add new tasks for KSUKP's which there was no opportunity to resolve previously. For example, many enterprises which have been related by a single production process and cooperation have begun to develop combined standards. This is developing the relations of KSUKP's horizontally, so to speak, and reinforces them along the line of "supplier-consumer."

/On the Scale of the Sector and Region/ [in boldface]

Substantial change in the overall situation must be taken into account in work to improve operating systems. In the current five-year plan, the problem of organizing relations vertically, of interaction of established KSUKP's and those being developed in sectorial and territorial systems, has arisen. At present, practically all sectors of industry are developing sectorial systems for managing product quality (OSUKP). The systems of enterprises make up their nucleus, and do not function in isolation but in close coordination with planning and design organizations, those in related industries, and consumers.

Thus, the sectorial system of quality management in the automotive industry provides for interaction among associated sectors on matters of quality in vehicle production. By the beginning of this five-year plan, 88 percent of the enterprises of the Ministry of the Automotive Industry had introduced overall systems for quality management. This has contributed to the fact that the output of products with the Emblem of Quality has reached 30 percent. The operating life of trucks has been increased by approximately 1.5 times, and the average carrying capacity of motor vehicles has been increased by nearly 20 percent.

Work on establishing sectorial systems must be more closely related with overall programs of standardization which ensure unity of requirements for raw material, materials, articles which make up complete units, and the final product (See diagram).

Interaction within the framework of the territorial systems for managing product quality also is being improved. Substantial results have been achieved by workers in the Latvian, Belorussian and Georgian republics. Thus, for example, the Gosstandart has approved the experience of ministries, organizations and enterprises in Latvia in developing and improving KSUKP's.

## Diagram: Program for Overall Standardization of Truck Tires

### I. Raw Material

1. Rubber
2. Latex, resins, carbon
3. Kapron cord, polyethylene, Neozone
4. Brass-plated wire for tires

### II. Equipment

1. Line for shaping half-finished tire sidewalls
2. Line for impregnation, drying, heat treatment, and rubberizing cord
3. Line for joining truck tire casings
4. Line for preparing inner tubes for vulcanization
5. Vulcanizers, rotary dryers barabany and other machinery

### III. Technology and Organization of Production

1. Technological preparation of production
2. Procedure for developing and coordinating manufacturing rules

### IV. Metrology

1. Procedure, organization and conduct of tire testing for series and mass production
2. Method of determining tire durability
3. Method of determining tire life on a test stand
4. Requirements for the standard program of road tests

### V. End Product

1. Tires with regulated pressure
2. Wide-section pneumatic tires
3. Standard-size pneumatic radial tires

The territorial system of managing product quality was established in Moscow and makes it possible to more fully utilize the city's scientific and technical and production potential. The city of Leningrad also has registered the system.

However, not all union republics and regions have begun and are consistently carrying out this work at present. Thus, the methodical and organizational problems of developing a republic system in the RSFSR have not yet been resolved.

### /A New Stage in Development of the Systems/ [in boldface]

In the current five-year plan, the forms of struggle to improve product quality are being enriched significantly, and the importance of this factor in improving production efficiency is increasing (these questions were examined in detail in the issue "Product Quality and Efficiency" in EKONOMICHESKAYA GAZETA No 49 of 1981). The KSUKP's also will be further developed.

Considerable opportunities for improving the systems are associated with automation. Many of the sectorial institutes have become aware of their leading role in organizing this complex work and have become methods centers. In the automotive manufacturing sector this is the NAMI [Central Scientific Research Institute of Automobiles and Automobile Engines], in the Ministry of Machine Building for Animal Husbandry and Fodder Production it is the Moscow Main Planning and Design Technology Bureau, in the Ministry of the Chemical Industry it is the TsNOTKhim [expansion unknown], and in the BSSR Ministry of Light Industry it is the Center for Scientific Organization of Labor and Production Management.

But far from all the main and base organizations have been able to ensure skilled scientific and methodical management of operations. Standard solutions for putting functions and the tasks of managing product quality into effect have not been worked out and plans for improving quality and establishing and improving systems are being poorly coordinated.

In the 11th Five-Year Plan, industry will have to complete the establishment of overall systems in conformity with the basic principles of a Unified System for State Management of Product Quality. Development and introduction of KSUKP's have been specified in agriculture, transportation, construction, and everyday services.

Systems for managing product quality are making it possible to improve work by raising production efficiency to a higher level. Thus, overall systems to raise production efficiency and work quality have been developed at enterprises in Dnepropetrovskaya Oblast and Krasnodarskiy Kray.

Both these systems are the result of creative development of methodical principles of management concentrated in the KSUKP's, and are based on extension of these principles to all aspects of an enterprise's activity—to organization of production processes, fulfillment of plan targets, efficient utilization of resources, and scientific and technical and social development. Utilization of this experience by other enterprises and transition to the new system will be one more step forward on the path of utilizing standardization to resolve the tasks set by the 26th CPSU Congress for the intensification and increased efficiency of the economy.

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## ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

### IMPROVEMENTS NEEDED IN ORGANIZATION OF MANAGEMENT PLANNING

Moscow PRAVDA in Russian 17 Apr 82 p 2

[Article by N. Igoshin, doctor of economic sciences and professor: "Fitting for Tomorrow"]

[Text] New tasks in developing the economy require more precise definition of the operating management systems. Particular attention should be devoted, I think, to rationalization of management at the middle level [v srednem zvene]. It has been represented by the All-Union industrial associations (VPO's). This level is still a "bottleneck" in the system of sectorial management. The problem is that the transition from ministerial main administrations to All-Union industrial associations has been carried out in most sectors hastily, and here and there formally.

In the first period after they were established, the All-Union industrial associations were given certain functions of centralized management, converted to cost accounting and an independent balance. In due course, part of these functions went to enterprises and production associations, and others went to ministries. Cost accounting levers of influence on the projects of management were lost, but the responsibilities remained broadened. In a number of ministries the industrial complexes which had previously been subordinate to main administrations were considered subsectors. When the VPO's were established, it was decided to retain such specialization. They thought it would have a beneficial effect on management. But for the present, this is not proving to be true everywhere or all the time.

Now, as previously, subsectors have not had and do not have precisely expressed specialization at their basis. Many VPO's turn out nearly all types of sectorial products. External relationships are more developed than internal sectorial ones. And this complicates the process of management. The flows of written data, as well as the amount of operational work, have increased in the ministries and VPO's. Certain technical and economic indicators--materials-intensiveness, the energy-intensiveness of production, and others--not only have not improved, but have even become worse.



Analysis shows that industrial associations do not always make use of their rights to the full extent and do not always carry out their responsibilities efficiently in accordance with management. At times these organs turn out to be cut off from production. In Moscow, 500 All-Union industrial associations have been established, but the enterprises subordinate to them are hundreds and thousands of kilometers away.

One of the alternatives in reinforcing the middle level of sectorial management is a shift from VPO's to large territorial-industrial associations directly subordinate to their ministries. This will strengthen territorial principles in management and will bring its middle level closer to production.

I will refer to the example of ferrous metallurgy. In this sector, Eight VPO's and the UkSSR Ministry of Ferrous Metallurgy are operating in this sector. When the VPO's were organized, basically those industrial complexes which previously were managed by main administrations were transferred to them. Judging by the results of the past 6 years, positive improvements are not evident. Of course, there are quite a few reasons for that. One of the important ones is the impractical organizational structure. Management of UkSSR metallurgical enterprises once again is being carried out in accordance with a five-level pyatizvennaya system. The staffing of the republic ministry has become cumbersome. The level of planned target fulfillment here is lower than in the sector as a whole. The USSR Ministry of Ferrous Metallurgy's All-Union industrial associations direct the work of enterprises in all the rest of the country's territory and do not always cope with the tasks which have been set. The paperwork style of management, then, has remained paperwork style.

Meanwhile, the metallurgical sector with high concentration of production is due to well developed territorial-industrial complexes: the Sredne-Ural'skiy, Yuzhno-Ural'skiy, Novokuznetskiy, Severo-Zapadnyy, Tsentral'nyy, Zhdanovskiy, Dneprovskiy, Donetsk, Karagandinskiy and Krivorozhskiy. In these regions there are dozens of related enterprises, organizations, and scientific research and planning institutes. They are closely interrelated with each other.

Logic prompts us to ask: is it not better to entrust the middle level of ferrous metallurgy management with historically established complexes, not subsectors? To establish territorial-industrial associations in places where they are based, let us say, instead of the VPO's which now exist.

A similar rationalization can be made within the limits of authorized staffs, and even if they are reduced. The rights and responsibilities of All-Union associations can be transferred to territorial associations. All this will provide many advantages. Bringing the middle level of management closer to the places of production will provide the opportunity to more specifically supervise affairs and to more fully utilize internal reserves and local resources.

Take even this fact. In each region there are enterprises equipped with modern blast furnaces and steel-smelting units. But the old ones are in operation there, too. If a territorial-industrial association were operating in a given region it could modernize the obsolete units. Large production facilities can become the

bases for expanding a cooperative on the "short arm of a balance" na "korotkom pleche". Elimination or modernization of obsolete units will make it possible to save tens of millions of rubles. After all, a ton of steel obtained from the large steel-smelting units costs 10 to 12 rubles less than from the outdated open-hearth furnaces. There also are reserves in ancillary production facilities. They are easier to centralize on a regional scale. Transition to the "short arm of a balance" would make it possible to eliminate superfluous management sections, relieve the ministry of operational work, and increase the initiating role of labor collectives in resolving problems of economic and social development. The influence of party and soviet leadership in oblasts and krays on development of productive forces and the quest to achieve the highest end results would become more specific.

Perhaps the most important problem in organizing management is an overall approach to the planning of management systems. The need for them is as natural in the area of management as it is in production. This will help to uncover significant reserves and to find the correct ways to utilize them.

What kind of reserves are these? Primarily the opportunity to more efficiently organize production: to implement the best possible specialization, cooperation, concentration and combination; to reduce the labor-intensiveness of operations in the management apparatus by intelligent division of labor, and to raise the level of mechanization and automation of operations. Finally, the most important reserve: the number of management personnel can be reduced and their work can be improved, and workers can be drawn into the solution of problems of socioeconomic development as well.

What is the situation with these reserves in practice? Planning of organizational systems of management has still been developed very poorly. Overall plans have been drafted only for individual enterprises. In most sectors there are not even methodical directives on how to do this. Such plans are especially needed for territorial-industrial complexes. Drafting of overall plans for low-level and basic management sections is the most long-term.

In a word, every enterprise needs an overall plan of management organization. It would be advisable to shift the drafting of them to "the production line" in the next few years. After all, many such plans are necessary: every 5-year period our country commissions over a thousand new large enterprises. And modernized plants? These plans also are needed for them. Of course, the volume of work can be reduced by scientifically sound standardization of plans. But after all, each "standard" plan also should take the nature of a specific production facility into account.

It is most logical, certainly, to charge sectorial institutes--the general planners for given projects--with drafting overall plans to improve management. After all, planning management organization can begin only when the engineering plan has been worked out, the staffing of production facilities and shops has been organized, the technology has been selected, and internal and external relationships have been established.

Two and more alternatives of each element of an overall management organization plan must be examined in order to select the best ones on the basis of economic evaluation. The lack of such an approach in the past had a negative effect on the drafting of master plans [general'nyye skhemy] for the management of sectors.

In the future, when overall planning of management organization assumes the appropriate scope, the divisions of master plans for basic, middle and lower levels can include the best solutions of the overall plans. Such a procedure for drafting and improving the master plans for management will make it possible to determine the stages in which measures are to be realized and to establish interrelationships of sections in a unified economic mechanism for the sector.

At the 26th party congress it was noted that it is necessary, guided by the experience accumulated, to refine the master plans which have been drafted more suitably for the tasks of the 11th Five-Year Plan. Everything that hinders growth, obstructs movement ahead, should be eliminated, and better, verified by experience--to achieve full range.

Master plans can and should become the basis for overall planning of the organization of management of projects for the long term. Refinement of sectorial master plans and development on the scale of the national economy will become a unique "fitting" for tomorrow, and will serve to further improve management of the economy.

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## ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

### METHODS OF IMPROVING PRODUCTION CAPACITIES REVIEWED

Moscow EKONOMICHESKAYA GAZETA in Russian No 14, Apr 82 p 10

[Article by A. Lavrov, deputy chief of a subdivision of the USSR Gosplan: "Production Capacities: Evaluation and Utilization"]

[Text] Improvement in the utilization of functioning production capacities is one of the basic directions in work on intensification of production. In conformity with the directives of the 26th party congress, it is necessary to begin construction of new enterprises and expansion of ones that are operating only if the requirements of the national economy for a given type of production cannot be met by more complete utilization of production capacities which have already been established, taking their renovation, re-equipment, and implementation of other organizational and technical measures into account.

[The Inconsistency of Coefficients/ **in boldface**]

Calculation of enterprises' production capacity and the level of its utilization is the initial and principal link in the process of planning and determining the production program for enterprises and sectors. Only by comparison of the output of products being planned with the size of production capacities can the requirement for putting additional ones in operation through capital investments be established. Comparison of the actual output of products with production capacity is characterized by the degree to which the production capabilities of a shop, enterprise or sector are utilized and makes it possible to judge the potential for increasing production of a product and the efficiency of the equipment workload.

Full utilization of the production capacities of operating enterprises is an important potential for increasing the output of a product and increasing production efficiency. "The course proclaimed by the party for intensification of production," stressed L. I. Brezhnev in his speech at the ceremonial meeting in Tashkent, "requires that all potentials of the economy be brought into circulation, and that we know how to use those capacities which we already have thriftily."

Methodical directives and sectorial regulations in effect do not rule out the possibility of calculating enterprises' capacities in accordance with a bottleneck, that is, equipment which limits an increase in production. This can explain the fact that when there are a low machine shift coefficient, low equipment workload, interruptions in material and technical supply, and many other organizational

breakdowns, the use of production capacity coefficient for most types of production facilities is extremely high and amounts to more than 90 percent.

It would appear that this indicates that the opportunities in a given sector for further improving a given coefficient have been exhausted. However, analysis of other indicators of the use of the means of labor, particularly equipment work-load and the shift coefficient, attests to the fact that there are significant reserves here. Thus, in 1980 the Astrakhan Forging and Pressing Equipment Plant utilized 99 percent of its production capacity with a machine shift coefficient equal to 1.09. The Kiev Machine Tool and Automatic Machine Plant imeni Gor'kiy utilized 97.8 percent of its capacity with a shift coefficient of 1.14, and the Kursk "Schetmash" plant figures were 99.4 percent and 1.53, respectively.

Moreover, a low percentage of capacity utilization still exists at enterprises. At the Zhitomir Machine Tool and Automatic Machine Plant, for example, with a shift coefficient of 1.04, use of capacity amounted to only 67.9 percent, and at the Belgorod Milling Plant the figures were 1.05 and 52.1, respectively.

These examples of inconsistency in coefficients attest to the irregularity of methods of calculation and violations of established procedure for determining production capacity and planning production of a product, based on the two-shift operating schedule of an enterprise.

The shift coefficient of metal working equipment in basic production, in spite of the measures being developed, is increasing extremely slowly and amounted to 1.43 for all machine building enterprises inspected in 1980, while in 1975 it was 1.41, that is, it increased by only 0.02.

Targets have been stipulated by the five-year plan for development of the national economy to increase the shift coefficient of metal working equipment in basic production for 11 machine building ministries up to 1.57.

The statutes approved for calculation of the production capacities of industrial enterprises and production associations (combines) require that calculation of an enterprise's production capacity include all equipment fixed in basic shops and production facilities, in addition to the authorized reserve and equipment for on-the-job training sections. Meanwhile, orientation on bottlenecks has led to a situation where 22 percent of the established equipment was not included in calculations for the 11 machine building ministries in 1980 as a whole.

#### **/Improving Methods of Calculation/ [in boldface]**

All this points to the need to improve sectorial regulations in effect for determining production capacities, and in a number of sectors, to draft and approve new ones. The Ministry of the Machine Tool and Tool Building Ministry should be seriously reproached for the very long period to develop and coordinate the new "Intersectorial Regulation for Determining the Production Capacity of Machine Building and Metal Working Plants." It should replace the obsolete regulation which has been in effect since 1970 and become the standard for a model agreement for all sectors of industry.

Failure to work out a number of methodological problems is impeding the preparation of new regulations. Economists still do not have a unified opinion on certain key questions: whether to take into consideration the calendar or production routine time, to consider capacity in accordance with the planned or the most favorable product mix, and to measure in real or value indicators or in labor expenditures.

In the next few years the USSR Gosplan is calling for development of methodical directives for calculation of production capacities and approval of them after broad discussion by economists. Development of balanced methods of planning also will contribute to fuller utilization of production capacities.

For the first time, together with breakdowns of physical and labor resources and the balances of the population's monetary incomes and expenditures, 96 planned balances of production capacities in the output of 88 of the most important types of products have been developed for the corresponding ministries by sectorial divisions of the USSR Gosplan with the involvement of ministries and departments under the leadership of the newly created consolidated balance of production capacities division. Both increases in capacities through re-equipment and renovation of operating enterprises have been determined in them. These balances have been included as an independent section in the national economic plan.

Work with such planned balances in the USSR Gosplan will provide the opportunity to strengthen supervision over the correctness of the calculations of production capacities and observance of the norms of duration for their assimilation. On this basis, an increase in capacities according to the types of production facilities through renovation and re-equipment of enterprises can also be soundly planned, and disproportions in developing sectors of industry can be eliminated. The balances are helping to identify and utilize the potential of available production capacities and to achieve interrelationship with the aim of reducing capital investments directed at new construction, re-equipment and renovation.

Methods of planning re-equipment and renovation of operating enterprises also are being improved. Capital investments for re-equipment and renovation will increase in the five-year plan by 21.2 percent, and their proportion in the overall volume of capital investments for industry will reach 32.5 percent, compared with 29.2 percent in the 10th Five-Year Plan.

The plan for re-equipment and renovation in the 11th Five-Year Plan has gone into one of the most important sections of the State Plan for Development of the National Economy—"Capital Construction." Brief methodical directives on putting together the plans for renovation and re-equipment of operating enterprises have been approved by the USSR Gosplan.

At the cost of re-equipment and renovation of operating enterprises, provision of a significant increase in production capacities has been outlined in the current five-year plan for initial refining of petroleum, extraction of iron ore, production of steel pipe, mineral fertilizers, synthetic resins, plastics, paper, and furniture and the production of other products.

/Putting Planned Capacities in Operation/ [in boldface]

The introduction of production capacities for a number of types of products will be substantially increased in the five-year plan compared with the 10th Five-Year Plan. Thus, capacities will be put in operation to produce 21.3 million kilowatts of electric power at nuclear electric power stations, as opposed to 7.9 million kilowatts in the 10th Five-Year Plan, to produce 3 million tons of steel pipe, as opposed to 2.6 million tons, and 1.2 million tons of paper, as opposed to 0.6 million tons.

An important factor in increasing production output is the assimilation on schedule of new capacities which have been put in operation and achievement of the plan indicators for the production cost of a product and labor productivity in the established periods.

For reducing the periods to make new technological processes and capacities operational, payment of bonuses has been introduced for workers in enterprises of the chemical, petrochemical, oil refining, wood chemical, coal-tar chemical, paper and pulp, hydrolysis, shale chemical, and chemico-pharmaceutical industries, industrial enterprises of nonferrous metallurgy, the microbiological and meat and dairy industry, and production facilities turning out intermediate products. Individual leading enterprises and production facilities in practically all the sectors of industry named are achieving indicators established by the plans two to four times more rapidly in comparison with operating norms.

The Novomoskovsk association "Azot," for example, made the planned capacity for ammonia production operational in 8 months instead of the standard 12 months. The Cherepovets production association "Ammofos" made it operational in 3 months instead of 6 months. These successes were achieved as the result of a high degree of operations organization and good training of personnel in the pre-operational period.

But a significant number of enterprises are still putting planned capacities in operation slowly; at many of them, the actual periods for making them operational are 2 to 3 years and more.

The established norms for assimilation, in our view, require more precise definition, taking into account the achievements of scientific and technical progress and accumulated work experience.

The USSR Gosplan is carrying out measures to improve methods for better assimilation and utilization of production capacities. In the plans for re-equipment and renovation of operating production facilities which have been drafted and the planned balances of production capacities for the 5-year period (with an annual breakdown), an increase has been stipulated in the level of use of capacities. Thus, in 1985, out of 88 of the most important types of output, 72 coefficients of the use of capacities will exceed 90 percent, while in 1980 this level was reached for only 35 types of output.

Compared with 1980, it is being planned to increase the level of capacity use 4 to 6 percent for coal extraction, for the output of cast iron, and the production of rolled metal, nitrogen fertilizers, lumber, paper, footwear, meat and other products.

The experience of leading collectives shows the advisability of the development and assimilation in ministries and departments of a complex of organizational and technical measures which ensure preparation of planned capacities for assimilation and achievement of technico-economic indicators in standard periods with a minimum of expenditures.

These measures should provide for an increase in capacities at operating enterprises through re-equipment, renovation, elimination of bottlenecks and disproportions among individual sections. Particular attention must be devoted to increasing the machine shift coefficient, reduction of idle time for an entire shift or partial shift by means of improving production organization and reinforcing production discipline. It also is advisable to stipulate specific measures to reduce the length of time for assimilation by enterprises and production facilities by carrying out the necessary preparatory operations, including training of personnel and the material and technical provision and marketing of a product.

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## ECONOMIC POLICY, ORGANIZATION AND MANAGEMENT

### IMPORTANCE OF PRODUCTION INFRASTRUCTURE NOTED

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[Article by N. Solov'yev, senior scientific staff member, TsEMI [Central Economics and Mathematics Institute], USSR Academy of Sciences: "The Production Infrastructure"]

[Text] The transition to a chiefly intensive path of production development is linked with profound transformations in the economic system. Definite importance in this process is attached to the sectors of the production infrastructure.

[The Role in the Reproduction Process/ [in boldface]

Development of production on the track of intensification entails not only an increase in its scope, but an extension of the social division of labor and the reinforced processes of specialization, cooperation and concentration. All this causes the expansion and complication of economic relations at all levels of the national economy, the regularity and continuity of which are necessary prerequisites for the normal course of the process of reproduction. They are carried out to a significant extent by specialized organizations and enterprises which are selected in individual sectors, the activity of which constitutes the infrastructure of the national economy.

It is an integral part of the unified national economic complex. The economic role of the infrastructure consists not of creating material wealth, but of providing overall conditions for the continuous functioning of production, servicing all fields and sections of the economy, and establishing the necessary basis for their continued and efficient activity.

The production infrastructure of the national economy includes systems of transporting (including electric power), data with the appropriate communications and computers, supply of production with the necessary resources (including water), and engineering maintenance of populated areas. However, the existing classification of sectors, the available data base, and the necessity of balance calculations have limited its staffing by the sectors of transport, communications, material and technical supply, procurement and trade.

The following data give an idea of the place of the production infrastructure in the national economy and its relationships with the basic sectors—industry, agriculture and construction.



Proportion of Basic and Infrastructure Sectors (in percentages)

<u>Sectors</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>
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In gross national product:

Basic	93.0	92.4	92.4	92.1
Infrastructures	7.0	7.6	7.6	7.9
including transport, communications	3.5	4.0	4.1	4.4

In number of those engaged in physical production :

Basic	89.8	86.8	83.6	80.7
Infrastructures	10.2	13.2	16.4	19.3
including transport, communications	4.8	6.7	7.3	8.5

In fixed production capital:

Basic	68.7	71.0	72.5	73.8
Infrastructures	31.3	29.0	27.5	26.2
including transport, communications	25.6	23.7	21.9	20.8

In production capital investments:

Basic	78.6	80.8	82.4	80.4
Infrastructures	21.4	19.2	17.6	19.6
including transport, communications	18.7	14.4	13.7	16.2

As is evident from the table, in the gross national product and in the number of those engaged in physical production in the period under review, the significance of infrastructure sectors increased. Their proportion in fixed production capital decreased, which had an effect on the inadequate degree of equipment and work efficiency. The same trends are characteristic of the development of transport and communications, one of the basic sectors of the infrastructure.

Sectors of the production infrastructure continue the production process in the field of turnover, linking it with the process of consumption. Not realized in new article production, the activity of infrastructure sectors is accompanied by a number of production features—transporting, storage, sorting, packing, and packaging of a product and preparing it for production consumption—on which socially necessary labor is expended, increasing the cost of the product. The insignificant proportion of infrastructure sectors in the gross national product results from the peculiarities of the planned price formation in our country and does not fully reflect the socially necessary expenditures in these sectors. The point is that primarily the economic interests of the basic sectors of the national economy which use infrastructure services are taken into account in the rates.

The place of the production infrastructure in the national economy is more correctly evaluated by taking into account those resources which have been drawn in to service physical production: its proportion consists of more than one-fourth of all fixed production capital in the country, and nearly one-fifth of those engaged in physical production and production capital investments.

### **/Accelerated Growth/ [in boldface]**

Analysis shows that shortcomings in the activity of individual infrastructure sectors often is the cause of inadequate efficiency in the functioning of individual sectors of the economy. Thus, over the past 10 years the national income used for consumption and accumulation increased by 55 percent, but commodity stocks increased by 98 percent. By retaining the relative standard of stocks at the 1970 level, their total amount in 1980 would be 272 billion rubles instead of the actual 323 billion rubles, and the "stock capacity" at the 1975 level would make it possible to release 32 billion rubles.

An intensive increase in all public production is impossible without accelerated growth in the infrastructure sector, because its failure to keep pace when there is an increase in the scope of national economic activity and relationships are complex will increase the negative effect on the efficiency of public production. The increasing demands of production for services of the infrastructure have been met basically through utilization of its internal reserves, which are becoming less substantial.

The freight traffic by rail transport attests to the relatively high level of intensiveness in its development, as is apparent in the graph. While the total length of the main routes of the Ministry of Railways will increase by (an estimated) 18 percent by 1985 compared with 1965, the freight turnover will increase over the same period by nearly 100 percent, owing to the electrification and automation of routes and the capacity of the rolling stock.

At the same time, while the gap between the average annual growth rate of freight turnover and the length of the railroads in the 1970-1975 period was quite significant—a ratio of 5.4 to 0.7—it was reduced to a relationship of 1.25 to 0.9 in the 10th Five-Year Plan. This indicates that further intensification of production in this sector is possible with some reinforcement of its extensive development.

The necessity for accelerated development of sectors of the production infrastructure was stressed at the 26th CPSU Congress: "...roads, transport and communications are lagging behind the growing needs of the economy. Consequently, serious efforts and much capital are required here, too."

Specific measures have been stipulated in the Basic Trends in Development of the National Economy for accelerating the growth of infrastructure sectors and fuller utilization of their reserves and opportunities.



Improvement in the technical characteristics of rolling stock, the road network, and organization of the shipping process makes for improvement in the speed with which goods are delivered, which now is five to six times less than route speed, which exerts a direct influence on the increase in efficiency of public production.

Renovation of the highway network is equivalent in its results to construction of a new "KamAZ" type plant, and the increase in speed of a railway car by even 1 kilometer per hour over the network is equivalent to putting a large railway car manufacturing plant into operation.

The task of further developing communications, reinforcing and improving the state system of material and technical supply, and increasing its responsibility for efficient use of raw material and materials and continuous supply of the national economy with material resources is being set for the 5-year period.

Significant economic and social gain will be obtained from development of a complex of engineering systems to provide populated areas with electric, water, gas, road and transport supply lines, as well as construction of purifying installations to prevent pollution of water supplies, the air and the soil.

**/From the Positions of the Intersectorial Complex/ [in boldface]**

The tasks set in the current five-year plan, owing to the expanded horizons of planning when the overall program of scientific and technical progress was developed, were determined in coordination with the visible prospects. Long-term special-purpose programs to develop elements of the infrastructure are being worked out. They include programs for developing transport, the mainline transport network, and the country's warehousing services, establishment of a single automated communications system, a state network of computer centers, and a single water supply system. Approximately one-fifth of the total amount of capital investments for the 20-year long term will go to the infrastructure, according to calculations.

Because of the long periods for construction of infrastructure projects and the high capital-intensiveness, implementation of these programs goes beyond the framework of the five-year plan and will require a large amount of capital. In this regard, the importance of a long-term plan for the country's socioeconomic development, in which available national economic resources should be coordinated with programs which are being developed to improve the infrastructure, is increasing. Experience obtained in developing an overall program of scientific and technical progress shows that, in order to ensure a state approach to development of the infrastructure and evaluation of its activity in accordance with national economic end results, it is advisable to examine the mutually coordinated, complementary, and interchanging development of its individual elements. Functionally, they constitute the intersectorial complex of the production infrastructure.

Compilation of a long-range plan is encountering significant difficulties, since the practice of planning does not have sufficient standards that have been worked out on the level of development and the level at which the infrastructure provides for the economy. Substantiation of these standards is one of the urgent problems of economic theory and practice. A serious obstacle in working out unified synthetic indicators is the specific nature of the elements which make up the

infrastructure, and above all, the fact that the gain being provided by them--the increased speed in shipping freight, increasing its safety and stability and the reliability of material and technical supply, the efficiency of data--appears in the indicators of the activity of the basic sectors of the economy.

Orientation toward national economic end results brings forward new methodological problems in economic analysis of the activity of the infrastructure complex, and requires that new indicators be worked out to evaluate its effectiveness. A working group of economists now is endeavoring to resolve these problems within the framework of the overall program of scientific and technical progress for the long-range future.

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## INVESTMENT, PRICES, BUDGET AND FINANCE

### EXPENDITURES, RESULTS, FORECASTS FOR BUDGET

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[Editorial: "To New Heights"]

[Text] The Soviet people are working strenuously to implement the historic decisions of the 26th CPSU congress and applying all their strength, creative energy and initiative for the successful practical implementation of the majestic plans of building communism.

The November (1981) Plenum of the CPSU Central Committee and 6th session of the 10th USSR Supreme Soviet were major events in the life of Soviet society. The decisions of the plenum and the session inspire Soviet people to new great achievements and accomplishments.

The plenum heard and discussed reports on the drafts of the State Plan of Economic and Social Development of the USSR for 1981-1985, the State Plan of Economic and Social Development of the USSR for 1982, and USSR State Budget for 1982, and basically approved them. The session of the USSR Supreme Soviet considered the documents and passed the appropriate laws.

With deep satisfaction and great enthusiasm, the country's toilers welcomed the address of Comrade L. I. Brezhnev, General Secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet, at the plenum. His speech showed the great political, organizational and economic work carried out since the congress, contained a comprehensive and thorough analysis of key problems of the country's economic and social development, offered a comprehensive characterization and political and socio-economic assessment of the 11th Five-Year Plan and the plan for the second year of the 5-year period, drew attention to the difficulties and shortcomings in planning, management and economic administration, showed the ways to overcome them, and expressed confidence that the great and complex tasks of communist building would be successfully implemented.

All Soviet people fully endorse and support the decisions of the CPSU Central Committee plenum and the USSR Supreme Soviet session. These decisions equip the working people with a clear program of practical action for the realization of the 11th Five-Year Plan and the 1982 plan and are a powerful incentive for the further expansion of the party's and the people's creative work and for raising the labor and political activity of the masses.

At the basis of the State Plan of Economic and Social Development of the USSR for the 11th Five-year period is the party's line of fuller satisfaction of the material and spiritual requirements of Soviet people and the further strengthening of the economic and defense might of the country. The 5-year plan was drawn up in accordance with the Basic Guidelines for the Economic and Social Development of the USSR in 1981-1985 and In the Period up to 1990. It specifies the congress's provisions as applied to the first half of the 80s and envisages concrete ways of successfully carrying out the main task of the 11th 5-Year Plan.

"The planned assignments for 1981-1985," as Comrade L. I. Brezhnev emphasized in his speech at the plenum, "on the whole meet the requirements of the congress. This ... is most important for an assessment of the plan."

Continued steady growth of the economy and improvement of the structure of social production will be assured in the 11th Five-Year Plan period. The national income used for consumption and accumulation will increase over the five years by 18 percent, industrial production by 26, gross agricultural output (in average annual terms) by 13, freight haulage by all types of transport by 19.4, and capital investment by 10.4 percent.

It should be noted in this context that on a number of economic indicators the plan provides for higher growth rates than achieved in the preceding 5-year period. This is in the first place true of the development of industry and agriculture, raising labor productivity, and savings of material resources in all branches of the economy.

The 5-year plan is an embodiment of the party's tireless concern for further raising the people's wellbeing. The party's main purpose has always been fulfillment of the program requirement: everything in the name of man, everything for the good of man.

Over the 5-year period the consumption fund will increase by 73 billion rubles, or 22 percent. The share of the consumption fund in the total national income will rise to 78 percent in 1985 as against 75.3 percent in 1980. Realization of the program of social development and raising the popular wellbeing will make for a 16.5-percent increase in real per-capita income in the 11th Five-year period. The growth of production and labor productivity will provide the basis for an increase in the average monthly pay of industrial workers and office employees by 14.5 percent, and of the remuneration of collective farmers for work in the public sector of kolkhozes by an average of 20 percent. By the end of the 5-year period the public consumption funds will total 144 billion rubles, or 23 percent more than in 1980.

Allocations of 16.6 billion rubles (calculated for 1985) will be directed into new measures to raise the people's living standards financed from centralized sources. Measures will be taken to raise the minimum wages, rates and salaries of workers and employees, increase government assistance for families with children, further improve working, living and recreational conditions for working women, and improve the social security system. Payments on state internal loans will continue.

The 5-year plan provides for measures aimed at realizing the task set by the party congress of improving supplies of food and industrial goods for the population and better balancing the effective demand with commodity resources and paid services.

To this end, as provided by the Basic Guidelines, the plan envisages a somewhat higher growth rate in the production of goods in the "B" group of industry as compared with the "A" group. The structure of consumer goods production will be improved, their assortment will increase and quality will be better. Retail trade will increase by 23 percent over the 5-year period and will total 345 billion rubles in 1985, while the volume of public services will increase by 44.3 percent. The development and implementation of the food program and the program for the development of the production of new consumer goods are subordinated to the solution of these tasks.

In the 11th 5-year period efforts will be continued to resolve the housing problem, improve public health services, develop education, culture and the preschool facilities network. In these 5 years, housing with a total floor-space of 530 million square meters will be commissioned, preschool establishments capable of accommodating 2.9 million children will be opened, and production of the medical industry will increase by almost 40 percent.

The party and the government are doing much to raise the people's wellbeing. However, as noted at the CPSU Central Committee plenum and the USSR Supreme Soviet session, there are also difficulties here. They are due to both objective (three successive drought years, deterioration of the international situation) and subjective causes stemming from the fact that the style of economic activity and economic thinking, planning methods and the management system are still not up to the requirements of the present stage of economic development.

There continue to be interruptions in supplying the population with meat, dairy products, cotton textiles and other goods. There is only one way to solve these and other problems: raising production and labor productivity and enhancing the efficiency of the economy.

The 11th Five-Year period will be an important stage in the implementation of the party's course for greater efficiency of social production and transferring the economy to the mainly intensive road of development.

Over the 5-year period labor productivity will increase by 23 percent in industry, 15 percent in construction and 10.5 percent on the railroad transport. The average annual level of labor productivity on collective and state farms will increase by 23 percent. It is planned that 90 percent of the growth of the national income will be achieved by raising the productivity of social labor. With the purpose of assuring fulfillment of the assignments for higher labor productivity, the ministries, departments, union republics, associations and enterprises are called upon to implement necessary measures to raise the technical equipment of labor, speed up the mechanization and automation of production processes, reduce the number of workers engaged in manual labor, improve production organization and strengthen labor discipline.

One of this 5-year period's most distinctive features is that the growth of the absolute increases in production must be achieved along with an appreciable decline in the increase of the labor force in the production sphere and in the limits of capital investment. The speech of Comrade L. I. Brezhnev at the plenum and the addresses of deputies at the USSR Supreme Soviet session devoted much attention to questions of the more efficient use of the country's production potential and effecting greater savings of all types of resources. Much is to be done in implementation of the resolution of the CPSU Central Committee and the USSR Council of Ministers of 30 June 1981 "On Strengthening Efforts For the Saving and the Efficient Utilization of Raw-Material, Fuel-Energy and Other Material Resources." This resolution, as N. K. Baybakov noted in his speech at the session, calls for consistent implementation of the principles of socialist economic management and adherence to Lenin's behest to keep close and conscientious count of money and pursue a rigid policy of economy. The plan sets higher targets than in the 10th Five-Year Plan for the reduction of the consumption of the main types of raw-material, fuel, energy and other material resources. It provides for a higher rate of reduction of production costs and for a 40.3-percent growth in profits.

Much attention was given at the plenum to the problem of improving the economic mechanism and the management and administration of the economy. The whole economic mechanism must be brought in line with the requirements of the 26th CPSU Congress: the economy must be economical. Perfection of the economic mechanism is a significant factor in raising the effectiveness of social production.

The 11th Five-Year Plan was drawn up with due consideration of the requirements set forth in the resolution of the CPSU Central Committee and the USSR Council of Ministers of 12 July 1979, "On the Improvement of Planning and Enhancing the Impact of the Economic Mechanism on Raising the Efficiency of Production and Quality of Work." Here, prime attention, it was pointed out at the session, must be given to the strict observance of contractual discipline with regard to delivery deadlines and nomenclature, preventing plan adjustments in the direction of their reduction, and enhancing the effectiveness of material and moral incentives in fulfilling assignments.

The 5-year plan provides for the further acceleration of scientific and technological progress. To this end there are provisions for the extensive introduction of progressive manufacturing processes, and for increasing the output of new machinery and equipment, transport means, instruments, and also more economical materials. The rate of production automation will increase. The 5-year plan incorporates the basic assignments for 170 scientific and technical programs drawn up and endorsed by the USSR Gosplan, the State Committee for Science and Technology and the USSR Academy of Sciences; their ultimate objective is the introduction of the most effective scientific and technical achievements in the economy.

The 26th CPSU congress reaffirmed the need for further pursuing the course of priority development of socialist industry. The heavy industry will continue to play an important part in the development of the economy and in obtaining high ultimate national economic results. This 5-year plan gives special

attention to the development of the basic branches of industry, the whole fuel and energy complex in the first place.

In 1985, electric power production will reach 1,555 billion kilowatt-hours, an increase of 260 billion kilowatt-hours over 1980. The extraction of oil and gas condensate is to reach 630 million tons by 1985. Provisions are for increasing the production of gas by 45 percent over the 5-year period, bringing it up to 630 billion cubic meters in 1985. Coal output will increase by 59 million tons over these years and reach 775 million tons in 1985.

The development of metallurgy will continue. The main trend in ferrous metallurgy will be improvement of quality and increasing the output of effective types of metal products. In nonferrous metallurgy special attention will be given to strengthening the raw material basis, technical re-equipment, reconstruction and expanding the capacities of existing enterprises.

The chemical and petrochemical industry will develop at a priority rate. The volume of production in this branch will increase by 32 percent over the 5-year period.

The 11th Five-Year Plan accentuates the need for the technical re-equipment of production. In this connection the accelerated development of machine-building will continue. The 5-year plan provides for a 40-percent increase in the output of products of the machine-building and metalworking industries. More highly productive and efficient machines will be built and supplied to the economy, their unit capacity, service life, dependability and quality will be raised, and the creation and production of machine systems will continue.

The 5-year plan assignments provide for a substantial increase in the production of a variety of building materials and products of the timber, woodworking and pulp-and-paper industries. The high rate of development of geological prospecting operations will be retained.

The solution of the social program depends in large measure on the production of industrial consumer goods. The 11th Five-Year Plan provides for the continued increase in the output of these goods. The volume of output of the light industry will increase by 19 percent. The 5-year plan also provides for a 40-percent increase in cultural, household and domestic items. In this connection the USSR ministries and departments, the union republic councils of ministers and local councils have the task, in the course of implementing the 5-year plan, of finding additional opportunities for boosting the output of cultural, household and domestic goods, as well as local industry products, and making more extensive use of the internal reserves of enterprises and local raw material sources.

Comrade L. I. Brezhnev noted in his address at the November (1981) plenum of the CPSU Central Committee that "the food problem--in both the economic and the political aspect--is the central problem of the whole 5-year plan."

Further growth of agricultural output is a highly important aspect of the solution of this problem. In 1985 the volume of agricultural output will



reach 147.1 billion rubles. The plans provide for the priority growth of the production of grain and feed, increasing the output of livestock farming, boosting the yields of farm crops, and raising cattle and poultry productivity. The average annual grain harvest in the 11th Five-Year Plan period will be 239 million tons, the production of meat by the end of the period will be brought up to 18.2 million tons (slaughter weight), and milk will be up to almost 102 million tons. Household and collective horticulture and gardening, as well as supplementary farms of enterprises and organizations, will be more extensively developed.

The party's policy of further strengthening the material and technical base of agriculture will continue in the 11th Five-Year Plan period. There are provisions for allocating almost 190 billion rubles of capital investment for these purposes, or more than 27 percent of the total for the national economy as a whole. Supplies of material and technical means and mineral fertilizers will increase considerably. Land improvement work is to continue to expand. Much attention is being given to measures aimed at preserving agricultural output.

In view of the fact that the uninterrupted supply of the population with high-quality food products requires the good functioning of both agriculture and many other branches, the 26th CPSU congress considered it necessary to draw up a comprehensive food program. This program must pool together the efforts of agriculture itself, the branches of industry that service it, and the agricultural products procurement, storage, processing, transportation and trade systems.

The 26th CPSU congress set the task of full and timely satisfaction of the demands of the economy and the population for transportation and of raising the efficiency and quality of operation of the transportation system. Along with considerable increases in freight and passenger haulage, the plan provides for measures aimed at more efficient freight haulage, improving transportation links and the utilization of means of transport, and reducing specific fuel consumption norms; it also defines other measures aimed at resolving the problems existing in transport.

The plan provides for ensuring fuller satisfaction of the requirements of the economy and the population for communication services.

Of great importance for implementing the 5-year assignments is realization of the program of capital construction. Attention is being focused on raising the effectiveness of capital investments and better coordination of capital construction with material and technical resources and the capabilities of construction and installation organizations. The main focus of attention is raising the effectiveness of capital investments and improving coordination between capital construction and the material and technical resources and capabilities of construction and installation organizations. It is important to note in this connection that the plan provides for a considerably higher growth rate in commissioning fixed assets than in the increase of capital investments and a reduction of unfinished construction so as to bring it down to the normative level by the end of the 5-year period.



Following the congress's instructions, capital investments will be primarily made for the reconstruction and technical re-equipment of operating enterprises, and their share in the volume of capital investments for industrial construction will increase to 32.5 percent, as against 29.2 percent in the 10th Five-Year Plan period. In these circumstances the ministries departments and union republic councils of ministers are faced with the task, when drawing up their annual plans, of finding additional opportunities for increasing the scale of reconstruction and technical re-equipment of existing enterprises.

The 5-year plan provides for the development of the country's economy as a single national economic complex, for improving the geographic distribution of the productive forces, and the proportional growth of all its branches and the economies of the union republics.

A considerable reserve for raising the effectiveness of our economy, Comrade L. I. Brezhnev said at the plenum, is the balanced, well-thought-out development of external economic ties.

The 11th Five-Year Plan provides for increasing the Soviet Union's foreign trade turnover by 22.5 percent. Primary importance in this will be attached to the development of economic relations with the countries of the socialist community. The socialist countries' share in the Soviet Union's foreign trade will increase from 54 percent in 1980 to 58 percent in 1985. Along with the expansion of mutually beneficial commercial exchange, the Soviet Union will continue to give economic and technical assistance to developing countries. The Soviet Union is also ready to continue to develop commercial and economic relations with all capitalist countries on an equitable and mutually advantageous basis.

The 5-Year Plan assignments were further developed and specified in the State Plan of Economic and Social Development of the USSR for 1982 and the 1982 State Budget of the USSR.

The stable, dynamic development of the economy in 1981 creates a good basis for implementing the assignments drawn up for the second year of the 5-year period.

The scale of social production increased in 1981, labor productivity has risen, and the social program is being realized successfully. The party's agrarian policy is being implemented consistently and the material and technical base of agriculture is growing stronger.

At the same time, it was noted at the CPSU Central Committee plenum and the USSR Supreme Soviet session that the successes in economic development could have been greater if shortcomings in the work of a number of ministries, departments, organizations and enterprises were overcome. These shortcomings, as well as difficulties that developed in agriculture, prevented the fulfillment of the year's planned assignments in a number of indicators.

The November (1981) plenum of the CPSU Central Committee instructed the central committees of the union republic communist parties, kray, oblast, okrug, city and rayon party committees, party organizations, local government, trade

union and Komsomol bodies, to be guided by the statements and conclusions set forth in the speech of the General Secretary of the CC CPSU Comrade L. I. Brezhnev at the plenum and to focus attention on successful completion of the assignments for 1981 and the fulfillment and overfulfillment of the 1982 plan and the 5-year plan as a whole. To this end they are to direct their efforts at the realization of the party's main formula: raising the effectiveness of the economy, its intensification. Maximum use should be made of available opportunities for accelerating scientific and technical progress, raising labor productivity in all elements of the economy, increasing output and improving the quality of products. Special attention should be given to considerably improving capital construction. Necessary measures must be taken to assure the efficient and thrifty consumption of metal, fuel, electric power, raw and primary materials, financial and labor resources; everything must be done to make our economy economical, enhance the role of science, get more effective results from the work of scientific-research, development and design organizations; persistent efforts must be directed at further improving planning and management of the economy, improving the style and methods of management. Efforts should be made to improve the effectiveness of external economic ties and, in the first place, expand cooperation with the socialist countries.

The plenum stressed that the large-scale tasks outlined by the party require that every branch, every union republic, kray, oblast, city and rayon, and all labor collectives should multiply their efforts aimed at fuller utilization of reserves and opportunities. High priority in this connection must be given to improving organization and efficiency and strengthening government and labor discipline in every section of production, in all spheres of administration.

The 1982 state plan of economic and social development is strictly based on actual opportunities.

As compared with 1981, the national income will increase by 3 percent and industrial output by 4.7 percent, which includes a 4.8 percent increase in the production of the means of production and a 4.6 percent increase in consumer goods. Per capita real income will increase by 2.1 percent, state and cooperative retail trade by 3.1 percent, and sales of everyday services by 6.9 percent. Labor productivity will increase by 4.1 percent in industry, by 3.5 percent in construction, and by 1.6 percent in rail transport. Profits derived from industrial activity will increase by 6.5 percent.

In 1982, all sources of financing will contribute to the construction of housing with a total living space of 106.9 million square meters.

One of the topics mentioned at the CPSU Central Committee plenum was strict liability for the unconditional fulfillment of the plan.

The 1982 USSR State Budget provides the monetary resources needed to finance the planned measures for the further development of the nation's economy, raising the people's wellbeing and strengthening the state's defenses.

Together with the enterprises' own funds and bank credits, a total of 328.9 billion rubles will be allocated to finance the economy.

Implementation of the social program will continue in 1982. The total expenditure of the state for centralized measures for raising the people's material and cultural wellbeing will exceed four billion rubles.

The 1982 plan and budget provide for the allocation of 23.8 billion rubles to finance scientific research. This will make it possible to implement a complex of important measures for the acceleration of the rate of scientific and technological progress, as well as for the extensive introduction of scientific achievements in industry.

Outlays for financing industry are 169.2 billion rubles, including 141.8 billion for the development of heavy industry. Twenty-seven point four billion rubles will be allocated for measures for the further material and technical equipment of the heavy, food, meat and dairy, fishing and other industries producing goods for the population. This will make it possible to increase the output of consumer goods and improve their quality.

With greater emphasis being placed on the role of intensive factors of economic development, special attention of ministries, departments, associations and enterprises is drawn to the need for a radical improvement in the utilization of productive assets, raising the capital-output ratio and in all ways enhancing the policy of thrift in the economy. The 1982 plan and budget provide for specific measures aimed at reducing production overhead and increasing profits in industry by 1.2 billion rubles.

Outlays for the further development of transport and communications in 1982 are 30.7 billion rubles, or 5.8 percent more than in 1981.

The 1982 plan and budget allocate large resources for the consistent build-up of the material and technical base of the agro-industrial complex: 110 billion rubles. It is planned to allocate 57.3 billion rubles in budget outlays, the own funds of state farms and bank credits for the development of agriculture. In addition, the investments of collective farms for the expansion of production in 1982 will total 20.4 billion rubles.

State capital investments for the year will increase by 0.9 percent. The plan of financing state capital investments has been set at 121.6 billion rubles. Here, the overall sum of state expenditure for equipment and the technical reequipment and reconstruction of operating enterprises in 1982 will be 69.4 billion rubles. Special attention is being given to achieving major changes towards increasing the efficiency of capital construction. There are also provisions for mobilizing the internal reserves in construction, mainly the extra-normative stocks of uninstalled equipment to the sum of 3.2 billion rubles.

Budgetary outlays for social and cultural undertakings in 1982 will total 106.8 billion rubles, an increase of 4.9 billion rubles. In addition, funds of government enterprises, collective farms, consumer cooperatives and public

organizations to the sum of approximately 26 billion rubles will be allocated for these purposes. The country's defense expenses have been set at 17.05 billion rubles, which is 5.3 percent of the total outlays of the budget.

Total outlays of the 1982 State Budget will be 321.7 billion rubles, which includes 135.2 billion rubles in the state budgets of the union republics.

The 1982 USSR State Budget provides for revenues of 322 billion rubles, of which 293.7 billion will come from government and cooperative enterprises and organizations in the form of turnover tax, profit deductions, income tax and other revenues of the socialist economy.

Successful fulfillment of the 1982 plan and budget approved by the USSR Supreme Soviet will require major organizational and political efforts on the part of the USSR ministries and departments and the union republic councils of ministers to mobilize the reserves available in the national economy.

The decisions of the November (1981) CPSU Central Committee plenum, the laws passed by the USSR Supreme Soviet and the provisions and conclusions set forth in the speech of Comrade L. I. Brezhnev, General Secretary of the CC CPSU, at the plenum place important tasks before the USSR State Bank system. It is incumbent on all elements of the banking system to actively facilitate the successful fulfillment and overfulfillment of the 1982 plan and the 5-year plan as a whole and the realization of the party's prime line of raising the efficiency of production and intensifying it.

In their practical work State Bank and State Labor Savings Bank offices must unswervingly and persistently implement the measures of the USSR State Bank for the fulfillment of the resolutions of the 26th CPSU congress.

In the interests of further strengthening money circulation, more attention should be given to the elaboration of measures aimed at ensuring a better balance between the cash incomes and expenditures of the population. In this connection there are more and more demands for stepping up efforts aimed at finding and utilizing possibilities for expanding the output of consumer goods in high demand and increasing the volume of paid services. Another urgent task is that of assuring effective control over the thrifty expenditure of funds for wage payment.

In the current 5-year period major important problems aimed at enhancing the impact of the credit accounting mechanism on the results of the economic and financial operations of enterprises, associations and organizations will have to be resolved. This work will require special emphasis on verification of the extent to which the policy of economy and thrift is promoted in the economy, the fulfillment by enterprise of assignments for savings of all types of resources, the acceleration of the turnover rate of working capital, the increasing of the capital-output ratio, reduction of production costs, reduction of different losses and waste, and the elimination of nonproductive expenses. All this requires the continued improvement of economic work in all spheres of banking activity.

It is also necessary to achieve the maximum impact of the financial and credit mechanism on the radical improvement of capital construction in rural areas, raising the effectiveness of capital investment and the observation of plan and financial discipline in construction. In view of the specific features of the 5-year plan and the 1982 plan in the sphere of capital construction it is very important to substantially enhance bank control over the maximum concentration of capital investments, labor and material resources, as well as of the capacities of construction organizations at underway projects and jobs involving the technical re-equipment and reconstruction of operating enterprises; over on-schedule commissioning of production capacities and projects, raising the level of industrialization of construction operations and the degree of factory finish of structural elements and parts and greater use of new, efficient structural designs and local building materials; and over the maximum curtailment of new construction starts.

Successful fulfillment of the tasks stemming from the State Plan of Economic and Social Development of the USSR for 1981-1985 and the 1982 plan and budget will require persistent and purposeful efforts aimed at the further improvement of the management of the whole process of diversified banking activity, improvement of the style and methods of work, raising labor productivity, the development and more efficient utilization of the creative capabilities of personnel, and their greater activity, organization and business efficiency.

Great and complex tasks lie ahead. The efficient work of all elements of the State Bank system for enhancing the effectiveness of the monetary, credit and accounting mechanisms and their impact on the intensification of production, the strengthening of cost accounting, and promotion of the policy of thrift in the economy will facilitate the successful solution of the tasks of the 11th Five-Year Plan and the implementation of the decisions of the 26th CPSU congress.

In this year of the 60th anniversary of the Union of Soviet Socialist Republics, the employees of the State Bank system will join in wide-scale socialist competition and spare no effort to actively contribute to the fulfillment and overfulfillment of plan assignments and higher socialist pledges by all collectives of enterprises, offices and organizations.

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## INVESTMENT, PRICES, BUDGET & FINANCE

### ASPECTS OF CREDIT RELATIONS IN DEVELOPED SOCIALISM

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[Article by N. P. Fadeyev]

[Text] The article examines theoretical problems of credit relations in developed socialism, the role and content of credit, its functions and correlation with other value categories. Several practical trends are suggested in the further improvement of credit relations, raising the role of credit at the present stage of social development, and enhancing its impact on raising the efficiency of social production.

The decisions of the 26th CPSU Congress include: "Raising the role of financial and credit levers in the intensification of production, strengthening of cost accounting and consolidating the policy of economy [2, p 199].

The posed task calls for continued studies in the theory of money, finance and credits and in-depth analysis of their content in the conditions of developed socialism.

From the analysis of capitalist production relations made by K. Marx, it follows that credit is an important lever in the development of social production and, in certain measure, its accelerator. As value category, credit facilitates the turnover of the natural-commodity elements of production and, consequently, the acceleration of expanded reproduction as a whole. By overcoming the time factor, credit advances resources and creates better conditions for more efficient utilization of the value created by the society.

The most general characteristic of credit, its essence, consists in the specific returnable form of the movement of value: "...This movement--supplying on condition of return--represents in general the movement of a loan given and a loan received, that specific form of merely conditional alienation of money or commodities: [1, Vol. 25, Part I, p. 382].

It would appear that when production is directly public in character, there is no direct need for commodity-value forms, including credit. However, the

practice of building communism in the countries of socialism shows the objective need of utilizing them, insofar as socialist society cannot function or develop effectively without planned price formation and planned utilization of money, finance, credit and cost accounting. Further studies of the theory of credit are linked with the need for a fuller scientific substantiation of its place and role in the economics of developed socialism, the selection of more effective forms of meeting the demands of expanded socialist reproduction, and determination of the ways and means of raising the efficacy of utilization of the credit mechanism in intensification processes.

The question of the content of credit has still not been adequately elaborated in the economic literature. On the other hand, intuition is not enough for scientifically managing the banking system and precluding a willfull approach to the solution of arising problems.

Most economists who recognize the generic feature of credit--the lending of funds, hold that, as an economic category, it (credit) is inherent in all socio-economic formations involving commodity-money relations. The terms, "socialist credit," "soviet credit," which are fairly frequently used in the literature, can be accepted only as a kind of clarification of the address of the social economic system in which credit operates. Recognition of credit as a general category means that its generic properties-features (for example, return, payability) should be manifest wherever it operates, irrespective of the nature of the respective socio-economic formations. It follows from this that the generic features of credit, which have been called "principles of credit" in the literature, also operate in the socialist economic system. However, in socialist conditions, credit has a different socio-economic purpose, basically new objectives of utilization and a corresponding mechanism for achieving them, which in no way precludes the common qualities inherent in this category in different formations. It is appropriate in this connection to quote the following statement of K. Marx: "...Commodity production and commodity circulation are phenomena characteristic of the most diverse modes of production, though their volume and importance are far from being the same. Consequently, we know nothing of the specific (characteristic features) of the given modes of production and can say nothing about them if we know only the abstract categories of commodity circulation common to them all" [1, Vol. 23 p 124].

As an economic category in conditions of socialism, credit is a component element of the production relations. The content of credit can be revealed only on the basis of an analysis of the whole system of value categories directly expressing the commodity-money relations, their specifics in the conditions of socialism, and determination of the place of credit in this system. In the conditions of socialism and the dominant role of directly social relations and their regulatory impact on commodity-money relations and the corresponding value forms, credit acquires new content. It follows that the development of credit is also subordinated to the interests of directly social relations, while the extent to which it is used is in the final analysis determined by the level of development of public ownership and the productive forces of socialist society.



In spite of the historical limitations inherent in commodity-money relations, they continue to have a substantial impact on the structure and methods of organization of production. The production elements for ensuring fulfillment of the national plan of economic and social development operate on the basis of a degree of cost-accounting independence in the utilization of the production funds assigned to enterprises. The extent of cost accounting at enterprises whose operations are organized on the basis of the economic stake of collectives and their employees in the results of collective labor in many ways reflect the level of the functioning and utilization of commodity-money relations. But even given broad cost-accounting independence, the operation of these elements expresses the national economic interest, insofar as they were set up at the expense of the whole society and operate on the basis of a national economic plan and for its fulfillment. The combination of this interest with the cost-accounting interest of individual collectives and each of their members expresses the common system of interests operating in a socialist society.

Credit serves as one of the economic forms of realization of the law of value and utilization of commodity-money relations. It is not enough, however, to limit oneself to an analysis of only this objective connection. On the whole, credit is objectively interconnected, directly or vicariously, with all the economic laws of socialism and must therefore be taken more actively into account in the process of their operation. Credit fits organically into the system of realization of economic laws (demand--interests--materials interest--economic incentives) and as such facilitates the fuller, planned consideration of the requirements of these laws. At the same time it would be wrong and unfounded to exaggerate the role of credit in the implementation of economic laws and belittle the importance of other economic categories.

The functions of credit in socialism correspond organically to the socialist relations of production. As an economic form of the movement of value on the basis of returnability, it serves these relations as an economic tool of production development, belongs to them and carries within itself the results of the social labor of the socialist economy. The socio-economic direction of credit in socialism finds expression in its planned utilization in the interests of the fullest satisfaction of the requirements of the fundamental economic law of socialism in the given conditions. It can be used, by virtue of the value qualities inherent in it, for more directly affecting the interests of collectives and their individual members by enhancing the economic incentives for the development of production and raising its efficiency. Credit is used, with the help of interest-rate policies, for the equivalent regulation of the activity of production collectives of socialist society for the purpose of fulfilling the economic plan and the balanced, proportional development of the economy, insofar as it is connected with the movement of society-produced value, which is in many ways vicariously reflected in credit relations.

Unlike other value levers, the operation of credit is characterized by the returnable movement of value. This is a specific part of its content. But on the whole the functional essence of credit under socialism is determined by its system of production relations, in the first place, socialist ownership of the means of production.



In examining the content of credit, it is necessary to establish the economic connections it expresses. A number of authors hold that the economic connections of socialist enterprises are uniform in form and content, based on the directly social character of labor, planned by the state, are in many ways of a directive nature and, since they are realized in commodity-money form and with the help of value tools, represent a special form of directly social connections (see, for example, [3]). Basically, when speaking of state socialist enterprises and a planned organized market, which dominate in a socialist economy, this position is correct. Other authors consider that only indirect connections can function with the help of economic tools. Notably, in their view credit in effect only mechanically supplements the centralized formation of turnover funds on an equally centralized basis and cannot be restricted by any normative conditions of movement of turnover funds [4].

The latter stand involves a number of important questions.

First of all, in the conditions of socialism, indirect regulation with the help of value levers is of a restricted character, insofar as the distribution of funds for production needs is effected on a strictly planned basis. The procedure is not appreciably affected either by the expansion of supply of enterprises through the wholesale form of trade or in the form of direct ties, which are organized on a planned basis, taking into account the economic requirements of regions and the operating consumption norms to ensure fulfillment of the national economic plan.

Secondly, even with all the imperfections of the credit mechanism and occasional miscalculations in the practical utilization of credit, it is wrong to identify in "only with a mechanical supplement of centralized formation of turnover funds on as centralized a basis or with the form of temporary (returnable) financing." Credit vicariously reflects the movement of value created by the society, accelerates it on certain stages of the turnover and circulation of funds, i.e., it operates in its characteristic sphere with its characteristic content. Other sources of plant turnover, even if they are formed on a centralized basis and in maximum quantity (in the practical aspect the society lacks such possibilities, and materialization of such an idea would contradict the universal law of saving of social time), cannot perform such functions, which are alien to them. This, however, does not preclude the need for enterprises to be assigned their own turnover sums, in economically sound quantities, as a primary base for their effective functioning. In this connection it is necessary to make a critical evaluation of the sources of turnover funds that have evolved in different branches of the national economy. It is necessitated by the fact that the proportional economy formed from their own or equivalent sources declined from 33.3 percent at the end of 1965 to 26.9 percent in 1975, and to 24.9 percent at the beginning of 1980. Viewed from the standpoint of the tasks of increasing the cost-accounting liability of enterprises for profit distribution set by the party and the government, this proportion in the sources of formation of turnover funds is unjustified. That is why the resolution of the CPSU Central Committee and the USSR Council of Ministers of 12 July 1979 on improving the economic mechanism provides for setting enterprises economically substantiated

norms of turnover funds in the 11th Five-Year Plan and for adjusting the amounts of their own turnover funds accordingly.

At the same time, in our opinion, it is necessary to rigidly enforce the stabilization of enterprises' own turnover funds so as to ensure that the actual funds involved in the economic turnover be not less than the established norms, i.e., the enterprises' own turnover funds allocated to them should remain "indivisible" and not subject to regulation when carrying out various expenditures, deductions or payments not directly associated with processes of completion of production or realization of produce. This would make it possible to preclude such a negative phenomenon when a large number of enterprises (about one-half the total number) operate with a shortage of their own turnover funds, making it unnecessary to look every year for sources to cover the shortage of funds, provide credits for these nontraditional projects and, most important, assure real observance of the declared condition that "society can distribute only that which has been produced" [2, p. 203]. Such a measure could be an important factor in strengthening cost-accounting and enhancing the effectiveness of all organizational structures in the national economy, including finance and banking agencies.

Eventually it is necessary to enhance the efficacy of interest rates through greater linking of the rights and responsibilities of enterprises and their management agencies in conditions of normative distribution of profits and the adoption of minimal interest rates for credits in the financial plans of enterprises.

It is necessary to enhance the role of such credit principles as the planned target and return nature of loans through judicious selection of credit projects. The development of credit relations should be characterized not only by the quantitative aspect of their growth but also by improvements in the structure of the qualitative composition of credit investments corresponding to present-day requirements of enhancing the effectiveness of social production.

The share of credit debts in the formation of turnover funds grew from 11.5 percent in 1965 to 22.5 percent as of the beginning of 1980, which is consequence of considerable shortcomings in the financial mechanism which have a negative impact on the strengthening of enterprise cost accounting. Moreover, in a number of branches of industry, especially the processing industries, the own turnover funds of enterprises are so negligible as to be of not more than token value.

Thirdly, the use of credit without taking into account the normative conditions of the movement of turnover funds may represent a retreat from the principles of planned development, lead to automatic crediting and, consequently, undermine state interests. At the same time, it is obvious that in conditions of cost accounting the operating sphere of credit should be expanded on an economic basis, i.e., by improving the credit mechanism in the direction of enhancing the effectiveness of its planned-target character, returnability, security and payability.

It is common knowledge that under socialism the state plan of economic and social development, which reflects the requirements of the fundamental economic law of socialism, is used for the direct regulation of economic development. This regulation also provides for the active use of value levers for achieving the current and long-term objectives defined by the plan. This presumes the subordination of these levers directly to the public interest by centralized planning of their role and spheres of influence. With this process in mind, we can speak provisionally of the indirect regulation of the development of economic relations, insofar as it is basically a tool for the achievement of tasks and objectives defined in the state plan.

The main thing is to understand the objective properties and qualities of each of the operating economic categories, notably credit, so as to use them more effectively in the interests of the society as a whole, which presumes correspondence between the cost-accounting interests of enterprise collectives and the interests of the state. In present-day conditions this is an objective necessity for the solution of many economic problems. The development of socialist production on the basis of more centralized planning can be better balanced by making the economic mechanism more flexible on the basis of fuller, more active and effective representation of different forms of movement of value in terms of value forms, including credit. In this, credit has an important part to play in balancing the natural-commodity and fiscal aspects of economic funds.

Deviations of the monetary form of the value of production assets from their natural-commodity aspect, especially from positions of strengthening money circulation, is permissible only on a very restricted scale conditioned by the specifics of capital turnover. The utilization of such funds, i.e., the possible boundaries of movement of loan capital, should be conditioned on actual removal from the economic turnover in terms of the monetary form of value. This condition, however, represents only one aspect of the problem; the other is strict observance of the principles of credit, which determine its content.

The development of credit relations in recent years has been characterized by a relatively high rate of growth of credit investment associated with the introduction of technical progress in industry, and especially its core, machine-building. As on 1 Jan 1980 bank credit accounted for the formation of 50 percent of the turnover funds of industry; whereas credit investment in industry over 5 years increased by 47.3 percent, credits invested in the heavy branches increased 62.3 percent. The sum of credits granted to machine-building enterprises increased by 82.0 percent. By the end of the 5-year plan heavy industry accounted for more than 51 percent of all credit investment in industry.

In the past 5-year period, 2.2 times more credits were allocated to cover expenses associated with the assimilation of newly commissioned enterprises, shops, production lines and processes, as well as with the manufacture of new types of output and improving its quality. Their total sum exceeded 2.1 billion rubles. Such credits were used extensively in the machine-building, metallurgical, chemical and woodworking industries.

Crediting of expenses associated with the development of new machine and equipment systems also expanded.

Crediting increased considerably in branches of industry directly associated with raising the material living standards of the people, i.e., the light and food industries. Bank credits accounted for the formation of 58.4 percent of the turnover funds of state farms and other state agricultural enterprises, and 56.4 percent of the turnover funds in trade.

At the same time, some expansion was posted in credits the need for which did not stem directly from the normal turnover of production assets and which did not in full measure meet such credit principles as loan returnability and collateral. The development of these credit relations found expression in credit to a certain degree performing the function of economic reserves (assets), which in certain measure created conditions for some deviations from the proportions and distribution of the national income provided for by the plan by issuing various forms of credit to cover financial gaps that had formed in the economy.

The expenditures and requirements of different elements of the national economy are credited on the basis of a credit plan. This, however, does not preclude certain forms of regulation by means of credit which is also used within certain limits in the interests of the planned development of the whole economy. In the conditions of a planned economy credit reflects the planned movement of public assets, which in the global aspect is the determining feature. Besides, given the present scale of the economy, it is neither possible nor necessary to plan the whole diversity of forms and factors generated by economic practice on a centralized basis. As an economic category employed in the interests of socialism, credit can, by virtue of its essence and specific features, properties and qualities, neutralize local deviations arising in the course of implementation of the economic plan and make the management of the planned economy more flexible. Of local credit-regulated factors, the following can be singled out in particular: ensuring the continuity of reproduction processes despite minimal resources of their own at the disposal of cost-accounting elements and nonuniformity in the turnover of assets; accelerated introduction of scientific and technical progress despite certain limitations of resources, etc. From this follow the need for and expediency of more extensive utilization of credit in the conditions of a developed economy and ever more complex connections caused by the growth of the scale of the economy.

At the same time, this does not imply total crediting of the needs and expenses of cost-accounting elements. It must be done in cases when such expenditures are necessary in the interests of solving economic tasks, ensuring continuity of turnover of assets involved in different forms of the movement of value. In such cases credits must as a rule be granted within the limits of plan-supported expenses and the possibilities of the loan fund.

In recent years, however, there has been a definite deteriorating trend in the utilization of credit, in particular, in the structure of credit investments, and a weakening of credit principles, for example, in the growth of the

proportion of credits not directly associated with the movement of material values and production costs, past-due debts on bank loans and a slowing down of the turnover of credit due to a number of objective and subjective causes.

In a socialist economy credit is one of the main forms of mobilizing temporarily available moneys and using them to form turnover and, in part, fixed assets of economic organizations in accordance with the economic and social development plan. The credit method of accumulation and utilization of temporarily available funds enables enterprises, organizations, state agencies and the population to make free use of funds belonging to them and makes it possible to combine this with centralized maneuvering of these resources through the network of credit agencies. Being based on public ownership, under socialism money and credit express new economic relations of working people free of exploitation; they do not carry antagonistic contradictions, and they obey the economic laws of socialism, are used by society and develop on a planned basis, i.e., they are used consciously in the interests of building communism.

Such utilization of credit and its effectiveness are inseparable from the observance of certain principles expressive of the independence of the economic category. The high mobility of credit forms of mobilizing and utilizing temporarily available moneys must be strictly regulated by the traditional principles of credit, which is an immutable condition for the strengthening of money circulation compatible with the satisfaction of the system of economic interests existing under socialism. In this connection it is necessary to clarify the legitimacy of providing enterprises with credits for such items as temporarily covering shortages in their own turnover funds, deferred unsecured loans, payment of supplier invoices regardless of the state of buyers' accounts with banks on earlier loans, slow demand, surplus commodities or other material values or those not needed for production, etc.

At the present stage of development, commodity-money relations, money, credit and other value categories which express a specific form of planned economic links represent a specific economic means of planning the development of socialist production and controlling the production and distribution of the aggregate national product. In this connection mention should be made of the growing tendency to interpret spheres of credit application taking into account the use of fixed limits or control crediting figures. Many economists take a critical view of the latter as not fully corresponding to the principles of the credit reform of the 1930s which completed the transition from indirect commercial to direct bank crediting. The essence of the question, however, is that in these two forms, which express different methods of bringing credit plans home to the executors, there takes place the process of planned utilization of the loan fund. Moreover, the forms include only the right of bank agencies to issue credits. The necessary size of the loan is determined on the spot according to the actual volume of expense or the actual movement of material values associated with the fulfillment of plan assignments. We find it wrong to identify these two parts with direct and indirect crediting. Here we have direct bank crediting. A portion of the credits is not restricted by limits and is planned in the form of control figures, insofar as it expresses an organic connection with the movement of value along the reproduction phases in the course of the turnover of assets. In view of the highly dynamic quality

of this stage-by-stage movement on a centralized basis, it is inexpedient to plan it, and a more flexible credit control system is used accordingly.

Debts on unsettled accounts between cost-accounting elements and their superior management agencies (credit debts) are defined as extra-plan redistribution of funds. In essence such debts represent a form of economic ties due to the movement of value and reflected in credit. The formation of this form of movement of credit is legitimate insofar as it is due to deadlines of document turnover for settling accounts between elements, for example, between suppliers and buyers, and for meeting contract commitments. In practice this objective form of credit ties is also taken into account in credit and, in part, financial planning by crediting debts to creditors and other means of target financing in sources of covering an enterprise's own turnover funds as stable liabilities. On the whole, however, the movement of this part of value is not directly regulated on a national scale; it is determined by the state of economic relations, the finances of enterprises (associations) and the forms of accounting.

It should be noted that in the conditions of socialism the limits of such a form of unfinished accounts on economic ties should be gradually narrowed. However, as shown before, the reverse is occurring in practice, which calls for urgent measures to ensure the optimal structure of the sources of formation of turnover funds and the strengthening of cost accounting.

The need for credit is predicated on the fact that under the socialist economic system, when there are nonuniformities in the turnover of production assets, it is possible to satisfy the objective requirements of economic agencies from temporarily available moneys which form at enterprises and associations because of differences in the time of availability and consumption of material and financial resources over production cycles, the creation (accumulation) and utilization of target assets (amortization, wages, etc.), distribution and utilization of the sheer profit on investment, incentives, insurance, etc. The formation of temporarily available funds is also connected with the mechanism of distribution and redistribution of the national income through the state budget and other target channels operating under socialism, as well as with the accumulation of labor savings of the population. At the same time, individual cost-accounting elements of the public economy as a single national economic complex require additional moneys for expanded reproduction of fixed and current assets as well as circulation assets (for reconstruction, expansion, improvements, modernization of operating and introduction of new machinery and equipment in line with present-day scientific and technical achievements, for expenses for the accumulation of agricultural produce and other types of raw materials at enterprises with seasonal production schedules, as well as for the other needs arising in the process of the main operations of enterprises in the manufacture and marketing of products and completing accounts in the case of deviations for reasons within or beyond their control).

Thus, the temporary availability of funds and the need for them is closely linked with the turnover of the production assets of cost-accounting enterprises and associations and with other forms of movement of value. Within



the currently operating economic mechanism, without utilizing these temporarily available moneys in the economy it is impossible to ensure normal expanded reproduction. In other words, at the present level of development this variant of the functioning of the main cost-accounting elements--enterprises, associations and branches of industry, and in the final analysis the social economy as a whole--is an objective necessity. Hence, the development of credit relations should be mainly determined by the scale and nature of the turnover of production assets, the movement of the value of which is a direct factor of credit relations.

The temporary demand for moneys that appears in the process of social production at enterprises, associations and branches is met by necessary money resources in the form of loans, i.e., credit. This makes it possible for the society to make do with minimal volumes of resources to satisfy objectively arising demand. Credit helps to ensure the continuity of the payment turnover associated with the realization of the social product, the distribution and redistribution of funds in the required proportions, i.e., credit reflects the movement of the principal mass of value created by the society.

The temporarily available moneys are used in the interests of the solution of socio-economic problems of social development, and this is done mainly in the form of bank credit. In the conditions of a planned socialist system this must occur thanks to planned economic relations, on certain conditions characteristic of credit, i.e., on conditions of return and payment.

The need for credit is thus linked with the expediency of using it to form a portion of the fixed and current assets of production elements. This is necessitated by the fact that the society must provide incentives for cost-accounting elements and obtain the greatest possible return for the least appropriation of funds and thereby support the essence of cost accounting as an incentive for good business and thrifty operation. The interaction of credit and cost accounting and combination of their functions and principles make it possible to resolve the continuously developing variations between the need to assure the continued stage-by-stage transition of the social product from one stage to another in the reproduction process and the difference in the rate of turnover of assets at individual enterprises and in branches of industry. There is no other theoretical or practical alternative to the objective character of economically sound minimization of the own money resources at the disposal of cost-accounting units, and consequently, the need for credit in the conditions of nonuniform turnover of public assets. At every given stage in its development a society simply does not have a sufficient volume of money resources to afford a slowing down in their turnover because of endowing enterprises with maximum resources of their own and precluding the use of credit. This would run contrary to the universal law of saving of social time discovered by Karl Marx. It has been approximately estimated that in such a case industry alone would require 2.2 times more moneys than the actually utilized credit investments to form the own current assets of enterprises, taking into account different rates of turnover. If we also take into account that credit accounts for the formation of almost one-half the total current assets in this branch, the size of the own funds of enterprises would have to be trebled. It would take several 5-year periods to create such



resources, to say nothing of the highly inefficient utilization of the value created by the society. Furthermore, during some calendar periods the funds created in such cases could be not only frozen but they could also hold back the process of expanded socialist reproduction as a whole.

Credit ensures the optimal maneuverability of money resources on the scale of the whole socialist economy and the continuity of exchange of activity between its different elements in the interests of the planned development of socialist production.

It should also be taken into account that credit regularly participates in the turnover of fixed assets, which transfer their value part by part to the product of labor (commodity) in the form of amortization deductions. This occurs regardless of whether the loans are made directly for capital expenses or not. The value of the realized product received by the enterprises in the form of money contains all the elements of expenses in the form of fixed or current assets partially or completely consumed in the reproduction process.

The definition of the content of credit in the economic literature reduces to a number of views, with some authors regarding credit as a planned form of movement of loan assets of socialist society, others seeing it as economic relations for the redistribution of moneys on conditions of return [5], while yet others simply refuse to recognize credit as an independent economic category and identify it with such a category as finance [6].

Those economists who see credit as an independent economic category justly note that it vicariously represents the return movement of value on the principles of restitution and equivalence, i.e., economically substantiated payment for the use of credit. Here, a specific feature of credit is that the granting of a loan to some cost-accounting elements does not affect the ownership rights on them of other elements of the socialist economic system. The functioning of credit in reproduction processes makes possible fuller realization of the opportunities inherent in commodity-money relations, whereas other economic categories (for example, the state budget, which according to its characteristics lies closer to direct social relations) possess fewer such qualities [7]. If we speak of the historical priority of individual categories, notably finance and credit, we should recall K. Marx's statement regarding the money basis of their origin: "Money can exist and historically did exist before capital, before banks, before hired labor, etc." [1, Vol 12, p 728].

The relative subordination and degrees of utilization of different economic categories may change with historical development and the maturing of the respective economic conditions. Moreover, it should be taken into account that credit, which was sired by money, subsequently itself became an economic tool for regulating money circulation. Under socialism, however, the character of money is determined not by credit relations but by the type of dominant socialist production relations. The historical experience acquired in creating the foundations of the socialist planned economic system indicates the gradual, increasingly comprehensive accumulation by money of the new economic and social content and its use in the interests of the establishment and development of

directly public production relations. During the period of the establishment of socialism a special significance and role attaches to such an economic category based on money circulation as finance, or more precisely, national finance (the state budget) which was used as a reliable medium for solving tactical and strategic tasks of the establishment of socialism and ensuring the necessary proportions of distribution and exchange in the interests of creating the foundations of a socialist economy. Finance operated as a tool in keeping with centralized regulation. The role of this category increases in conditions of developed socialism.

Nevertheless, one cannot help agreeing with the conclusions of some authors that the theoretical analysis of the historical sequence of development of economic categories (money, credit, finance) made by K. Marx is methodologically applicable to the study of the economic sciences of socialist society [8]. The growing significance of credit stems from the decisions of the CPSU Central Committee in the sphere of management and planning. The growing role of profit as a source of financing expanded reproduction and encouraging its effectiveness must, naturally, be accompanied by a reduction in the volume of budget financing, i.e., redistribution of the national income through the budget. This, however, does not detract from the role of national finances, which continue to determine the most important proportions in socialist expanded reproduction, i.e., in the continued development of directly social production relations. Budget funds will continue in the foreseeable future to finance many target programs for the development of new regions, solution of priority socio-economic problems, introduction of technical progress, the creation and mastering of fundamentally new production processes, machines, equipment and fundamental research, and the construction of projects essential to the society regardless of normative rates of return on investment. Growing significance attaches to motivating production efficiency by improving the forms of profit distribution and payment into the budget.

The stage of mature socialism continues, nevertheless, to be characterized by the intensive development of credit relations. They find expression, firstly, in the continued expansion of credit links with the leading branches of industry and agriculture which now constitute the country's vast industrial-agrarian complex; secondly, with branches of the construction industry; thirdly, in the active promotion of scientific and technical progress by means of credit financing; fourthly, in the strengthening of the organic connection between bank credit and the expansion of cost accounting of enterprises and associations through the economic interests of their collectives. The following data are characteristic in this respect. In 1980 alone, the USSR State Bank issued short-term loans to the sum of 1,577 billion rubles, or 70.8 percent more than in 1971. More than one-third of the short-term credits were provided for industry, and almost one-quarter for agriculture. In the last 15 years such new targets of credit application have been defined as investment in the development and introduction of new types of machinery and equipment, the starting-up of newly commissioned enterprises and production facilities, the preparation and introduction of new types of products, new manufacturing processes, etc. In the last few years credits in the investment sphere have increased substantially. As a consequence the prerequisites for the more effective utilization of credit in the solution of basic socio-economic

problems of economic development are being created. The main problem in this respect at the present stage is the utilization of the credit relations developed in the conditions of mature socialism in the interests of intensification of production, consolidating cost accounting and strengthening the policy of economy. As stated in the "Materials of the XXVI CPSU Congress," the tasks for 1981-1985 and the period up to 1990 in the sphere of enhancing the role of finance and credit levers in the intensification of production, consolidating cost accounting and strengthening the policy of economy consist in "more actively utilizing them for solving the tasks of speeding up and introducing new, highly efficient machinery, as well as ending the production of obsolete machinery, increasing the output of consumer goods and services for the population, mobilizing internal economic reserves, and eliminating nonproductive expenditure and losses" [2, p 199].

The question is thus of the comprehensive utilization of credit to enhance the socio-economic effectiveness of social production. Solution of this task calls for the further improvement of credit relations themselves, along the following lines: a) improving credit planning in the interests of raising the effectiveness of production; b) increasing the mobility and flexibility of the credit mechanism in satisfying the reasonable needs of economic elements; c) strengthening credit principles as a basis for enhancing the efficacy of credit and forms of economic impact on enterprises and associations through their cost-accounting interests and the orientation of enterprise collectives on fuller utilization of internal resources for achieving high ultimate results.

Solution of these and other questions will make it possible to ensure the further enhancement of the role of credit in carrying out the socio-economic tasks facing the society and defined in the decisions of the 26th CPSU congress.

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## ECONOMIC MODELING AND COMPUTER TECHNOLOGY APPLICATION

### GOSPLAN OFFICIAL DISCUSSES AUTOMATION

Moscow PLANOVOYE KHOZYAYSTVO in Russian No 3, Mar 82 pp 31-36

[Article by N. Lebedinskiy, deputy chairman of Gosplan USSR: "The Results of and Prospects for the Development of ASPR [Automated System for Plan-Related Computations]" ]

[Text] In the decisions of the 26th CPSU Congress and the CC plenums constant attention is devoted to an improvement of planning.

Speaking at the November (1981) Plenum of the CC CPSU, the General Secretary of the CC CPSU L. I. Brezhnev stated that while working on the fulfillment of the five-year plan it is necessary at the same time to improve the economic mechanism and the system of managing the economy. Quite a bit is being done in this direction, but the level of planning work in all of the echelons of economic management continues to lag behind the growing demands for substantiations of planning decisions, the responsiveness of the development of draft plans, and the organization of control over plan fulfillment. Planning agencies are not succeeding in interpreting and processing the enormous amount of basic information on time. And this problem cannot be solved by increasing the size of the apparatus.

It no longer gives rise to any doubt that the extensive path of development has exhausted itself not only in the sphere of production, but also in management. Broad opportunities for an intensification of planning processes and for the accomplishment on this basis of the urgent tasks of improving planning are being created by the modern information processing methods and equipment. As a result of work which has been done, the employment of economic planning information processing methods and equipment within the ASPR which is being introduced has become an inseparable component part of national economic planning.

The theoretical and designing base of the construction of the ASPR has been validated; the organizational and methodological problems of its design and introduction have been solved. And a technical base has been created which contains modern equipment for the preparation, processing, storage, transmission, and displaying of information on the basis of a single system computer and a mini-computer. Around 10,000 economic planning tasks which cover all of the most important sections and indicators of the state economic and social development plan have been adopted for use and are functioning in connection

with the development of current and long-term plans in Gosplan USSR, the Gosplans of the union republics, and the Gorplans of Moscow and Leningrad.

After the completion of the work on the first stage of the ASPR in 1977, an assignment was worked out and approved for the designing of its second stage. It was refined in accordance with the demands of the 12 July 1979 decree of the CC CPSU and USSR Council of Ministers "On Completing the Introduction of the ASPR in the 11th Five-Year Plan." The following tasks have been set for Gosplan USSR: to achieve with the help of the ASPR a variant development of plans, and the optimization of planning decisions; and to create the conditions for the extensive use of physical and value balances for the production and distribution of output and the use of production capacities, labor and financial resources, and the planning norms system.

In view of the complexity of these tasks and the short time for accomplishing them, Gosplan USSR and the State Committee for Science and Technology found it expedient to isolate a first stage of the second stage of the creation of the ASPR which cover the years 1978-1980. A special commission was formed for the acceptance and evaluation of the work of this stage. An analysis performed by it showed that the scientific and planning stock which had been created during the operation of the first stage had made it possible to ensure rapid rates for increasing the number of tasks which are introduced during the process of the development of the state plans. During the above years the number of tasks in the ASPR of Gosplan USSR increased to 2,900, compared to the 1,100 of the first stage, while in the ASPR of the Gosplans of the union republics there was a corresponding increase to 5,600 compared to 2,200. The republic level ASPR are developing at an accelerated pace; especial note should be taken of the work which has been performed by the Gosplans of the UkSSR, RSFSR, UzSSR, KaSSR, and LaSSR.

It is characteristic of the work on the second stage of the ASPR that the tasks which are developed in the subsystems are oriented toward a subsequent unification in complexes. Of the total tasks of the first stage of the second stage, 93 percent have been developed and introduced as elements of complexes. In contrast to the tasks of the first stage of the ASPR which were based to a substantial extent on local support means, the tasks of the first stage of the second stage of the ASPR, as a rule, are based on general-system solution.

On the whole, as a result of the work to introduce mathematical economic methods and computers during the 10th Five-Year Plan, the methodological and normative-information base of planning has been improved, and the accuracy of planning calculations and the validity of planning decisions have been increased. The work efficiency of the department specialists has increased, and their capabilities for processing large masses of information and optimizing planning decisions have been expanded.

At the same time, the Gosplan USSR Commission noted a number of important shortcomings, including:

a low proportion (around 10 percent of the total number) of problems which are solved using mathematical economic models, including optimization models;

a relative decrease in the number of problems which are solved on computers in connection with the development of long-term and five-year plans (12 percent of the total problems, compared to 40 percent in the first stage of the ASPR);

an insufficient increase in the number of problems for controlling the course of plan fulfillment (three percent of the total number);

the slow development of work to ensure interaction between the ASPR of Gosplan USSR and the ASU [Automated Management System] of the ministries and departments;

a lagging in the mastery of an effective technology for solving economic planning problems which is based on the principles of the functioning of data banks.

The above shortcomings are to a substantial extent a result of the fact that a number of organizational and methodological problems have still not received a solution. First of all, it should be noted that Gosplan USSR does not possess a single organizational-technological scheme for the development of a system of plans. The integration of work on improving the methodology and organization of planning has not been achieved. As an example we may take the fact that the designing work and the program to create an ASPR is organically unconnected with the methodological materials for the preparation of plans, including the methodological instructions.

During the 11th Five-Year Plan we shall have to, while continuing to expand the sphere of the application of computer equipment in the work of the departments of Gosplan USSR and the union republic Gosplans, create new conditions for the functioning of the ASPR which ensure the realization of the demands of the 26th CPSU Congress: "To introduce and make efficient use of an automated system of planning calculations."\* The unification of all of the tasks which are presently realized separately on computers into large information computer complexes will be a very important direction of the solution of this problem. This means that it is necessary to bring about a shift from the accomplishment on computers of individual tasks for the needs of one or another department to the organization of technological processes which coordinate the economic planning calculations performed by the departments within the framework of management with general economic tasks.

Proceeding from the demands of the 26th CPSU Congress and the 12 July 1979 decree of the CC CPSU and USSR Council of Ministers, the ASPR developers should concentrate their efforts during the 11th Five-Year Plan chiefly on the creation and

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\* "Materials of the 26th CPSU Congress," Moscow, Politizdat, 1981, p 198.



introduction of the central complex of tasks which will unite the work of all of the functional subsystems. It has to become the basis of the second stage of the ASPR, its nucleus which will ensure multi-variants and an optimization of planning decisions during the working out of the five-year plan. Within the framework of the complex calculations have to be performed which make it possible to search for variants of the best use of material, labor, and financial resources in the interest of achieving the highest final results.

A strengthening of the special-purpose orientation of plans, an increase in their balance, the optimization of planning decisions, the multi-variant and overall working up of the development prospects of the country, and an organic coordination between plans of diverse length--all of this is possible only with the wide and active use of mathematical economic models and methods.

The experience which has been accumulated in the departments of Gosplan USSR and the Chief Computer Center in accomplishing the tasks of optimization in the fuel and energy, petrochemical and chemical, construction materials and glass, and food industries and in agriculture and other branches of the economy shows that the accomplishment of these tasks makes it possible to validate the kinds of planning decisions which ensure a 10-15 percent economy of adduced expenditures for the achievement of planned final results. An interesting model has been proposed by the Computer Center of the USSR Academy of Sciences for designing and planning the exploitation of deposits in the petroleum and gas industry. According to preliminary evaluations, it can be used for other branches.

However, the introduction rates for mathematical economic models into the practice of planning are inadequate. It is necessary to make a careful analysis of the state of affairs in this area and to define the ways to use mathematical economic models during the 11th Five-Year Plan in planning the development of the branches of economic regions and national economic complexes.

At the present time more than 1,500 balance calculations are performed on computers for the Gosplan USSR departments. During the 11th Five-Year Plan the nomenclature of the balances which are realized through the use of computers will be made even broader, and their intercoordination will be achieved.

The creation with the help of computers in the Chief Computer Center of Gosplan USSR and the Computer Centers of the union republic Gosplans of an information base for the needs of planning has to become the basis of this work. What is intended is chiefly the operation by means of computers of a system of progressive norms and normatives which by the end of the five-year plan should be at the basis of all planning calculations. At the present time the Chief Computer Center of Gosplan USSR has accumulated an annually renewed mass which numbers more than 300,000 expenditure norms for raw materials, materials, and other resources.

The demand for the introduction of the ASPR during the 11th Five-Year Plan is making it necessary for its developers to perform a certain reorientation of their work. Whereas during the past five-year plan a substantial proportion

was held by the general system designing of the ASPR, during the 11th the emphasis is being put on the introduction of already developed and tested design solutions.

At the same time, the role of the departments of Gosplan USSR and of the union republic Gosplans in introducing the planning problems which are solved on computers is undergoing a sharp increase. A number of corresponding organizational measures have been adopted. In particular, a department for the improvement of planning and economic stimulation has been created which is to lead a complex of work on improving the methodology and organization of planning in the economy. In this connection, it is useful to place upon it the performance of the functions of head ASPR client. But it does not follow from this that all of the problems in improving planning will be solved only in this department--the newly created administrations, and, above all, their summary departments have to occupy an active position. With this kind of interaction a shift will be ensured from the isolated designing and introduction of ASPR within each department to the creation of systems of calculations which unite the work of groups of departments in administrations.

Of especial importance are the general economic summary departments which have the task of integrating the computation systems which are created in Gosplan USSR into a single technology for the development of draft plans. The greatest responsibility for the solution of this problem is being placed upon the departments of the prospects for economic and social development and summary five-year and annual planning. It is the latter which has to head the work on creating and introducing the central complex of tasks. The organizational and methodological direction of the work to introduce mathematical economic models into the practice of long-term planning has been placed with the department of the prospects for economic and social development.

The Main Computer Center of Gosplan USSR has a very important role in the creation and operation of the second stage of the ASPR. In forming the directions of its work the basic emphasis is being put upon the designing of the ASPR. Much less attention is being devoted to the role of the Main Computer Center in the operation of the system, while the above-mentioned aspect of the center's work is acquiring decisive importance. In the near future it will be necessary to reorganize the work of the Main Computer Center of Gosplan USSR, orienting it chiefly toward the development of a structure of economic planning tasks complexes and toward ensuring their operation as a system during the composition and fulfillment verification of long-term and annual plans.

By 1985 the Main Computer Center is supposed to possess fully developed, reliably operating means which make it possible to exploit the entire amount of tasks of the second stage of the ASPR in a dialogue mode between the planning worker and the computer. This will require reequipping the Main Computer Center with modern equipment. As an analysis shows, during the 11th Five-Year Plan it will be necessary to increase the computer capacities of the Main Computer Center by a minimum of 6-7 times, outfitting it with rapid-action computers of domestic production with peripheral fittings, and also a network of video-

displays and minicomputers capable of operating as intellectual terminals. It is impossible to accomplish such a difficult task by the mere replacement of computers. According to the data of confirmed technical and economic substantiations, the reconstruction of the center and providing it with equipment will require considerable resources which have to be provided for in the five-year plan; without this, it will not be possible to accomplish the tasks which have been set by the 26th CPSU Congress.

In addition, in view of the fact that the institutes of Gosplan USSR are also being equipped with computer equipment, the Main Computer Center will have to coordinate all of the work for their efficient use in order to create within the framework of the ASPR a single computer system of Gosplan USSR. In this connection, concern is being caused by the fact that there has been an insufficiently rapid mastery of the production of new computers which possess a high level of rapid action and, most important, a large volume of external memory, and also of universal mini-computers of various modifications which are set up at specially designed work sites.

Serious tasks confront the republican level ASPR development workers, especially with respect to the creation of computation complexes that take account of the specific nature and needs of the planning of each republic, and also their joining to the ASPR of Gosplan USSR. As the head organizations for overall designing, the Gosplans of the UkSSR and LiSSR have to ensure the development of proposals on the substantiation of a body of tasks which are subject to unification in the ASPR complexes of the union republic Gosplans, and to define a standard composition of the general system means necessary for their realization.

An important role in the work to complete the introduction of the ASPR is being assigned to the scientific research institutes of Gosplan USSR and of the union republic Gosplans. They have to take more active part in the performance of the scientific research, designing, and experimental work which is being given to them for the creation of the second stage of the ASPR. It has become necessary to distinguish within the institutes of the system of Gosplan USSR and the union republic Gosplans a head organization for the solution of the scientific methodological problems of an improvement of planning. It seems to us that it would be useful to give this function to the Scientific Research Institute of Economics at Gosplan USSR. It possesses the necessary experience, specialists, and scientific prestige for the performance of this function. The head institute's chief tasks should be the development of an overall program of scientific research in the field of improving the methodology of planning which is oriented toward the wide use of mathematical economic methods and computers, and control over the quality of recommendations which are made. In order for this kind of program to be a genuinely effective instrument for increasing the effectiveness of science, it would be useful to finance the existence not on the basis of their regular staffs, but of the topics they work up.

Gosplan USSR has been given the difficult task: to ensure the coordination of the work of the USSR ministries and departments on the interaction between

the branch and departmental automated systems and the ASPR of Gosplan USSR, and also to improve the organizational and methodological direction of this work. This goal can only be attained with clearly coordinated efforts by Gosplan USSR and the State Committee for Science and Technology which, as is known, has been given the task of creating an All-State System of Information Collection and Processing (OGAS). We believe that by organizing interaction between the ASPR and the Automated Management Systems of the ministries and departments of union and republic levels, we thereby solve the highly important problem of the creation of the OGAS. One would like to ask the State Committee for Science and Technology to speed up the completion of the work on the creation of a sketch of the OGAS which we regard as potentially a basic document defining the chief directions for the organization of the interaction of automated planning and management systems.

Considering the experience which has been gained in Gosplan USSR and in the union republic Gosplans in developing the sketch draft of the ASPR, we are prepared to take direct part in this work. Close cooperation between Gosplan USSR and the State Committee for Science and Engineering, in our view, is also necessary for the more efficient use of the resources which are being assigned for the solution of the problems of improving management as a result of the automated systems. And these resources are great. Only by ensuring the concentration of material, labor, and financial resources on the most important directions of improving management will it be possible to achieve an important result during the 11th Five-Year Plan in the creation and use of automated systems.

In our view, for the purposes of planning and management it is necessary to create in the near future an interacting complex of systems: the ASPR of Gosplan USSR, the Automated Management System of Gosstat USSR, the Automated State Statistical System of the Central Statistical Administration USSR, and the automated management systems of the industrial and construction ministries. Work is already being conducted in this direction. Thus, the State Committee for Foreign Economic Relations and the Ministry of Foreign Trade are actively interacting with the ASOP [expansion unknown] of Vneshtorg of Gosplan USSR. In a number of ministries the procedure and beginning dates have been determined for the joint functioning of the planning subsystems of their automated management systems and the corresponding subsystems of ASPR of Gosplan USSR.

In the future we intend to broaden the range of the automated management systems of the ministries and departments which interact with the ASPR of Gosplan USSR. This concerns, in the first place, the organization of the joint functioning of the ASPR of Gosplan USSR with the Automated Management System of Labor of the State Committee for Labor, the Automated Price Information Collection and Processing System of the State Committee for Prices, and the Oblast Automated Management System of the Ministry of Agriculture and Ministry of Railways, and also the ASPR of the union republic Gosplans with the republic automated management systems in using the positive experience of the LaSSR. The work on the second stage of the ASPR has to ensure the receipt of the basic mass of initial information and planning indicators of the five-year plan for

1986-1990 by the Main Computer Center of Gosplan USSR from the ministries, departments, and union republic Gosplans on magnetic tapes.

Thus, during the 11th Five-Year Plan we are faced by tasks whose importance and complexity it is difficult to overestimate. Their accomplishment will depend to a large extent upon the level of organization and the purposefulness of work. We have to remember that the work to create the ASPR, as an organic part of the work on the composition of plans, requires the daily attention of the leaders of all of the subdivisions of Gosplan USSR and of the union republic Gosplans, and of all of the specialists of planning agencies and their scientific organizations.

The experience in the creation and functioning of the ASPR has demonstrated its high effectiveness in the process of the operation of the system during the development of plans. According to preliminary calculations, the expenditures for the creation of the first round of the second stage of the ASPR will reimburse themselves in two years, that is, in 1982.

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